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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/352,562	07/13/1999	JAMES WATT	1400.4100221	2431

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EXAMINER

WAXMAN, ANDREW

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 12/12/2003

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/352,562

Applicant(s)

WATT ET AL

Examiner

Andrew M Waxman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1 – 25 have been considered but are moot in view of the new ground(s) of rejection.

Specification

The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 7, 9 – 15, and 18 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins et al. (US 5,509,123), in view of Pitcher et al. (US 6,370,142), hereinafter referred to as Dobbins and Pitcher respectively.

Regarding claims 1 – 5, 12 – 15, and 18 – 22, Dobbins discloses a method and apparatus including a plurality of forwarding engines (see col. 2 lines 29 – 32 and col. 7 lines 31 – 40). Dobbins further discloses a route computation engine (service engine see col. 7 lines 20 – 25, 61 – 67, col. 8 lines 1 – 6 and 22 – 28) obtaining registration information from the forwarding engines, and identifying the forwarding engines based on the registration information (See col. 9 lines 12 – 19 and 23 – 29). Furthermore, Dobbins also discloses providing control information to the forwarding engines (see col. 10 lines 22 – 27).

Dobbins does not expressly disclose providing a control message which requests verification of a state of each interface associated with the at least one forwarding engine, determining the present functionality of the forwarding engine based on a response or lack thereof, and updating the registration information of the plurality of forwarding engines based on the present functionality.

Pitcher discloses all members of a group providing identification information (abstract), where there is interfacing to forwarding engines (see col. 2 lines 38 – 43), the switch can update

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the information in its report destination list (see col. 7 lines 15 – 20), and a query as to whether or not a router is present. See col. 7 lines 23 – 26.

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to include the method and components of the invention, as disclosed by Pitcher, into the invention as disclosed by Dobbins.

One of ordinary skill in the art would have been motivated to do this in order to help facilitate the prevention of unnecessary use of bandwidth caused by the transmission of packets intended for a destination which is either not functioning or does not exist. This in turn would provide for a more efficient communication system.

Regarding claims 6 and 7, Dobbins further discloses forwarding operations based on at least one forwarding table, and the data forwarding operation (i.e. destination or next hop) is indicated by the control information, which includes instructions on how to forward the data packet (i.e. what is the next hop). See col. 10 lines 21 – 27.

Regarding claim 9 – 11, 24, and 25, Dobbins further discloses packet configuration information determines packet formats (i.e. class of packets) of packets exchanged using multiple shared traffic flows. See col. 9 lines 10 – 21.

Claim Rejections - 35 USC § 103

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins in view of Steeves et al. (US 6,212,185), hereinafter referred to as Steeves.

Regarding claims 16 and 17, Dobbins discloses all of the limitations as recited above with respect to claim 12.

Dobbins does not expressly disclose controlling the forwarding engines with one route computation engine.

Steeves discloses controlling multiple forwarding engines by way of a route computation engine/processor (see col. 6 lines 22 – 26 and FIG. 4 '30').

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to include a single route computation engine/processor, as disclosed by Steeves, to control multiple forwarding engines as disclosed by Dobbins.

One of ordinary skill in the art would have been motivated to do this in order to help alleviate the burden on end or intermediate nodes not having connections to secondary networks to recognize or act on additional address information. See Steeves Col. 4 lines 11 – 19.

Claim Rejections - 35 USC § 103

Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dobbins in view of Pitcher, and further in view of Batz et al. (US 5,918,022), hereinafter referred to as Batz.

Regarding claims 8 and 23, Dobbins in view of Pitcher discloses all of the limitations as recited above with respect to claims 1 and 18 respectively.

Dobbins in view of Pitcher does not expressly disclose a tunneling data type.

Batz discloses a network where protocols are tunneling data between routers (see col. 6 lines 42 – 45) to ensure reliable identification of the packets being sent.

Therefore, at the time the invention was made it would have been obvious to one of ordinary skill in the art to tunnel data, as disclosed by Batz, in the invention as disclosed by Dobbins in view of Pitcher.

One of ordinary skill in the art would have been motivated to include tunneling as a process used in packet transfer to ensure more reliable data packet identification for routers.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew M Waxman whose telephone number is (703) 305-8086. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Andrew M. Waxman


CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600 12/10/03